Enhancing Ontario's

COMPETITIVENESS

through investment in

Higher Education

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COUNCIL OF
ONTARIO UNIVERSITIES

CONSEIL DES
UNIVERSITÉS DE L'ONTARIO

Maximizing Ontario's Competitiveness Through Investment in Higher Education

Investment in higher education is essential for prosperity. Ontario's Task Force on Competitiveness, Productivity and Economic Progress noted that higher education is key to innovation and productivity growth. But Ontario lags when compared to its U.S. reference group[1] in terms of investment in universities and, as a result, misses many of the benefits that world-class institutions such as the University of California at Berkeley or Los Angeles can pass on to their communities. For example, Ontario lags dramatically in terms of conferring masters and doctorates per capita and, consequently, is not providing enough highly qualified people to meet private- and public-sector demands.

Ontario universities have entered a decade of the greatest growth in enrolments since the 1960s, with the student population on campuses expected to swell by an additional 90,000 over the next eight years. In contrast, however, the operating grant per student for Ontario universities has declined by 24% from 1993-94 to 2003-2004 in constant dollars. The Ontario government's provision of full average funding for growth[2] as well as of a Quality Assurance Fund will help offset this decline partially. Still, it remains crucial that Ontario redress this shortfall and enhance the standard of educational quality so that Ontario universities can help not only the province to build a globally competitive economy but also Ontario's students to prepare for a full and stimulating life.

[1] The Task Force on Competitiveness, Productivity and Economic Progress, in its Second Annual Report of November 2003, uses a reference group of 14 U.S. states (Massachusetts, New Jersey, New York, California, Illinois, Virginia, Georgia, Texas, North Carolina, Pennsylvania, Ohio, Michigan, Indiana and Florida) as well as Quebec to compare Ontario's economic and productivity performance. It suggests that Ontario should aim to improve its ranking from its current 13th position by one place every two years over the coming decade.

[2] Full average funding is provided primarily for undergraduate growth, resulting from the double cohort, higher participation rates and demographic changes; graduate growth, while also funded, is capped for the next four years.

Maintaining Quality for Growing Numbers of Students

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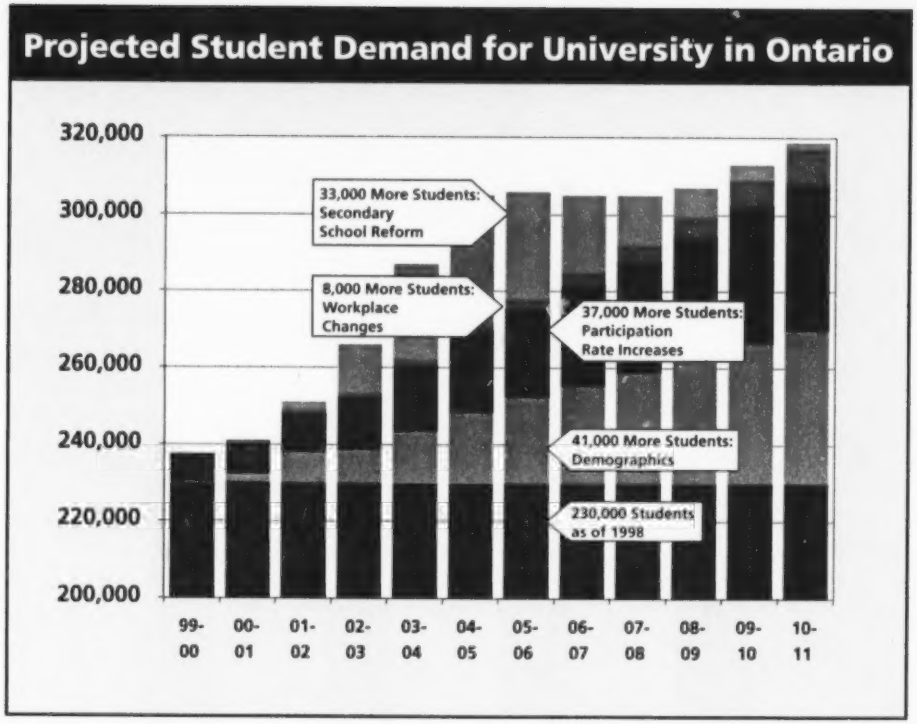
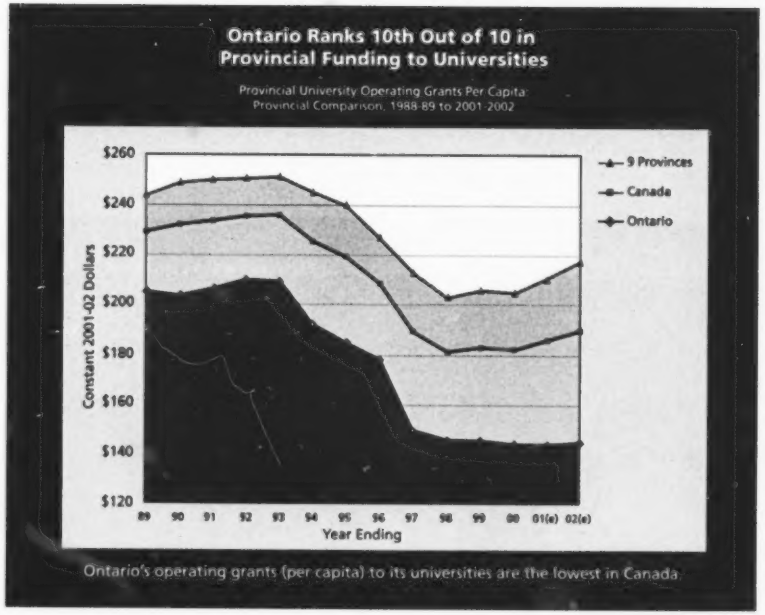
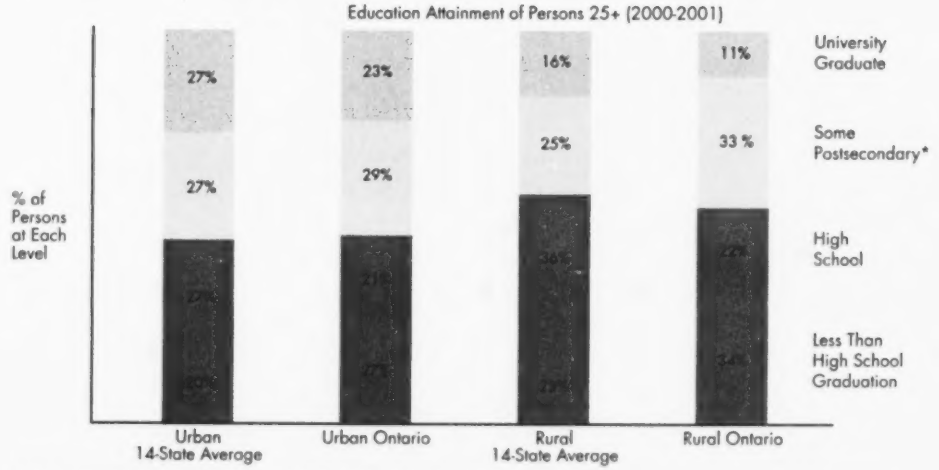
Ontario universities have met their commitment to the province's university-bound students by providing places for all qualified, motivated applicants in 2003-2004, the first of the double cohort years. Demand will continue to grow through 2010 and beyond. Growing numbers of students must be assured of receiving the quality education they deserve. This will require significant government investment.





Ontarians Are Less Likely to Have a University Degree Than Peer States' Populations

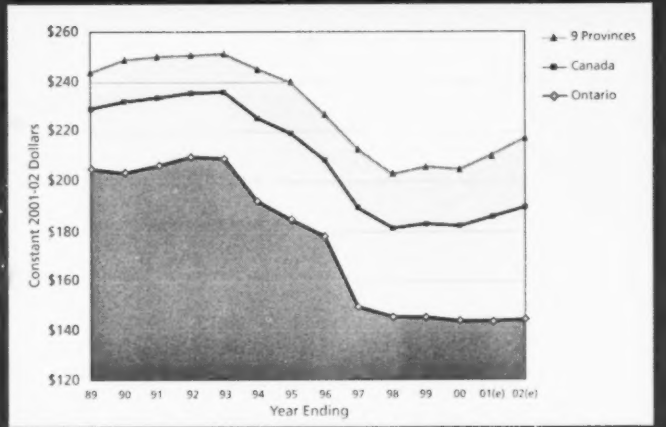
One cause of Ontario's prosperity gap and lower productivity relative to the U.S. is lower university attainment. "The clear message from our assessment of the prosperity gap in Ontario is that, with lower productivity and educational attainment than [peer groups of states in the U.S.], we are not realizing the potential of our metro areas for productivity improvements" (Institute for Competitiveness & Prosperity).



*Includes persons who have completed college certificate/diploma and associates degrees
Source: Institute for Competitiveness & Prosperity based on U.S. Census Bureau (Current Population Survey), Statistics Canada

Ontario Ranks 10th Out of 10 in Provincial Funding to Universities

Provincial University Operating Grants Per Capita:
Provincial Comparison, 1988-89 to 2001-2002



Ontario's operating grants (per capita) to its universities are the lowest in Canada.

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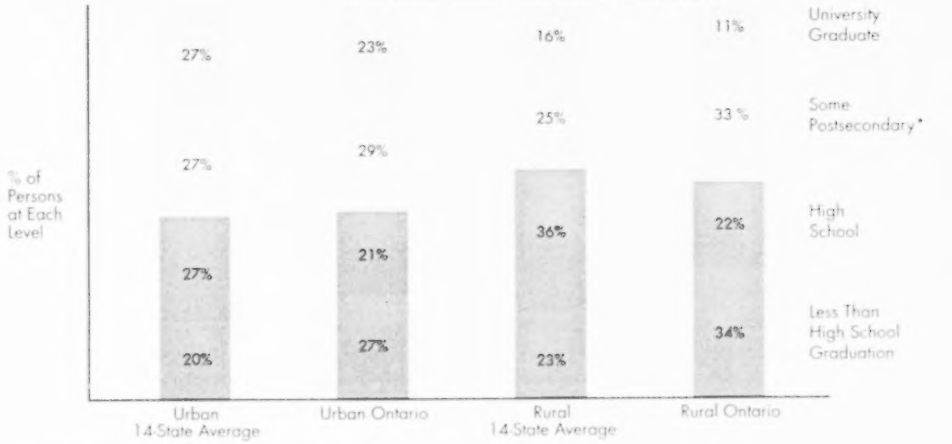
Education Attainment of Persons 25+ (2000-2001)



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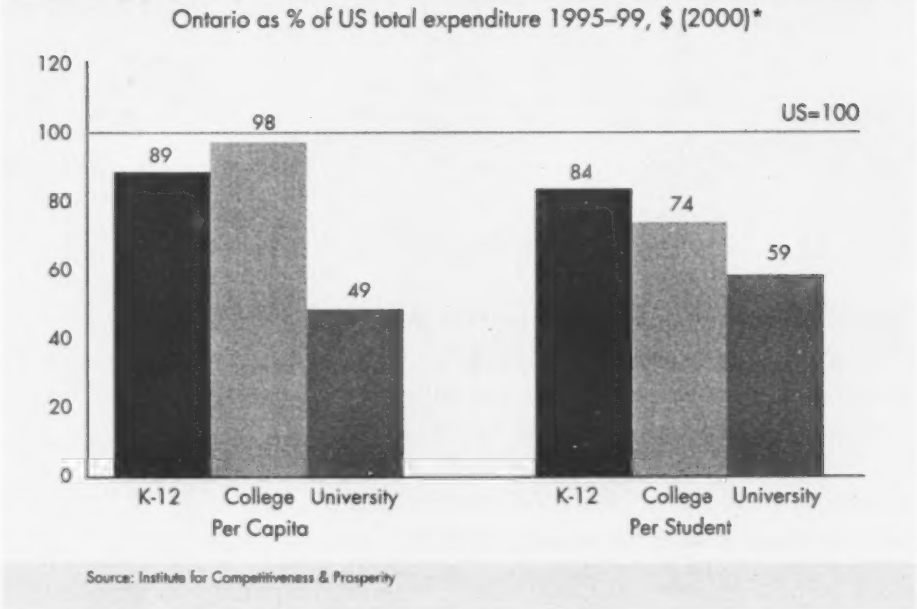
Ontario's spending lags US at all levels of education



*Conversions between the Canadian and U.S. dollar were calculated using the "purchasing power parity" index.

Improving Access for Ontario's Future Leaders

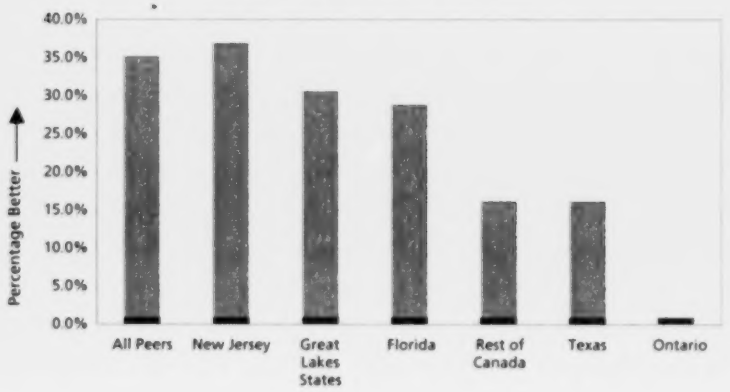
Sufficient student financial support through existing and new mechanisms is necessary to ensure that no properly qualified student is denied access to the program of his or her choice for financial reasons.

There have been considerable changes to Ontario's student financial assistance programs in recent years, with greater emphasis on the use of loans, stricter eligibility requirements that include more onerous requirements for middle-income families, and much greater reliance on funds from universities themselves. There has also been greater pressure on universities to provide Ontario Student Assistance Plan (OSAP) services that were previously the responsibility of government. Some of these changes have resulted in improved services to students, but they have also added to the system's complexity and the debt load borne by students. Needed improvements should include:

- Providing students with access to unsubsidized government-sponsored loans;
- Providing interest relief on loans on a graduated basis rather than the current all-or-nothing approach, so that individuals who are unable to make full payments could make partial payments to cover the interest costs; and
- Ensuring that all interest costs on all student loans are tax-deductible, regardless of the source of the loan.

Securing an Edge for Ontario Through High-Calibre Faculty

Faculty-Student Ratios Are Better in Other Jurisdictions (selected jurisdictions, 1999-2000)



Faculty-student interaction tops the list of internationally recognized benchmarks for quality in education. Study after study indicates that faculty-student interaction outranks every other factor in influencing the quality of the learning experience. In a random sample of 20,000 first-year, direct-entry applicants to Ontario universities, the 2003 University Applicant Survey found that academic reputation and emphasis on teaching are key factors that influence the decision to attend university, while ensuring access to professors is one of the top four concerns of students (COU/Acumen Research Associates).

The number of faculty at Ontario universities declined by 9%[3] between 1992-93 and 2002-2003 while student enrolment increased by 14%, making Ontario's student-faculty ratio the highest in Canada, having risen from 19-1 to 24-1 over the past decade. When compared to 170 reference group institutions[4] in the U.S., Ontario's ratio is 36% higher. Bringing Ontario's ratio down to the reference group average would require the addition of approximately 5,000 faculty positions paid for through an increase in the annual provincial operating grant of approximately $525 million.

Such a recruitment effort constitutes an unprecedented challenge and opportunity for faculty renewal. Ontario faces very strong competition from other jurisdictions in attracting top-calibre professors and withstanding ongoing attempts to lure talented faculty away. Operating grant increases should be allocated in a manner that corrects the problem associated with the "unfunded students" in many of Ontario universities.

[3] Based on preliminary estimates for 2001-2002 and 2002-2003.

[4] The 170 reference group institutions are listed on page 8 of *Comparing Ontario and Public Universities*, December 2000 (available at *http://www.cou.on.ca/publications/briefs_reports/Ontario%20vs%20US%20peers.PDF*).

Advancing Ontario's Future Through Advanced Degrees

10-Year Goal: Double Graduate Enrolment at Ontario Universities

Canada's labour market demand for graduates with master's and doctoral degrees exceeds the Canadian supply. The demand continues to grow as all jurisdictions strive to increase their innovation, competitiveness and prosperity.

To meet this demand, the Ontario university sector must increase its graduate enrolments by 88% – virtually double its current graduate enrolment capacity – within a decade.

With a growing number of institutions likely to be in a much improved position to expand graduate enrolments, the funding of graduate programs at the appropriate level will help satisfy the expected increase in demand. This will:

- Contribute to research activities in the province;
- Strengthen regional economies; and
- Prepare future Ontario university faculty.

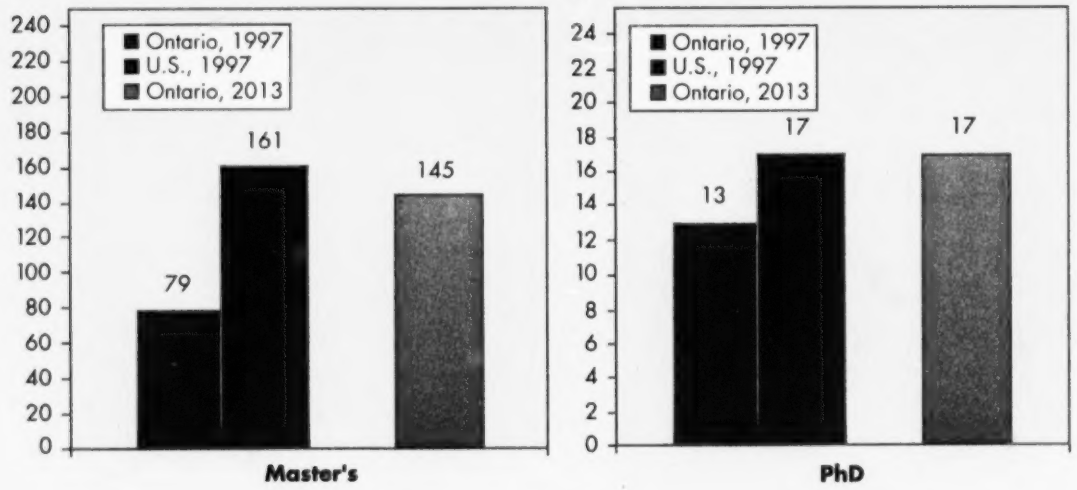
The increase in faculty is essential in providing the capacity to boost graduate enrolment. To attract the best graduate students in a world competing for talent, the other necessary elements are competitive graduate scholarships, competitive infrastructure (including library facilities, information technology and equipment) and competitive research support.

The accompanying charts show Ontario's current graduate production rates and relative competitiveness in developing a workforce with the advanced degrees that are wanted and needed in today's economy.

GRADUATE DEGREE PRODUCTION RATE

Ontario Lags Dramatically Behind the U.S.

Graduate Degrees Conferred per 100,000 Population



Source: Institute for Competitiveness & Prosperity, using COU estimates for 2013

A doubling of graduate enrolment by 2013 would bring Ontario in line with advanced degree production rates in the U.S. in 1997. An expansion of this order of magnitude is implicit in Canada's national growth targets for master's and PhD enrolments at Canadian universities during this decade.

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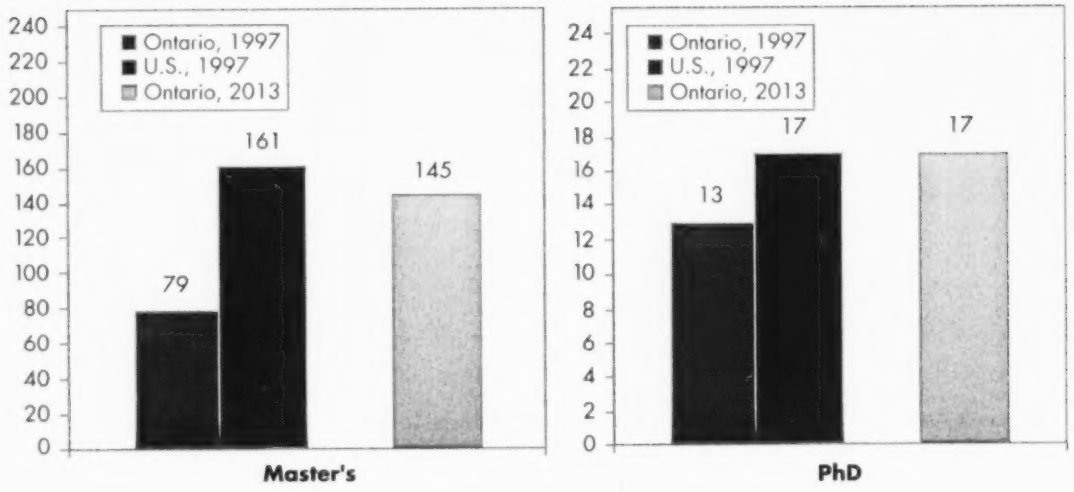

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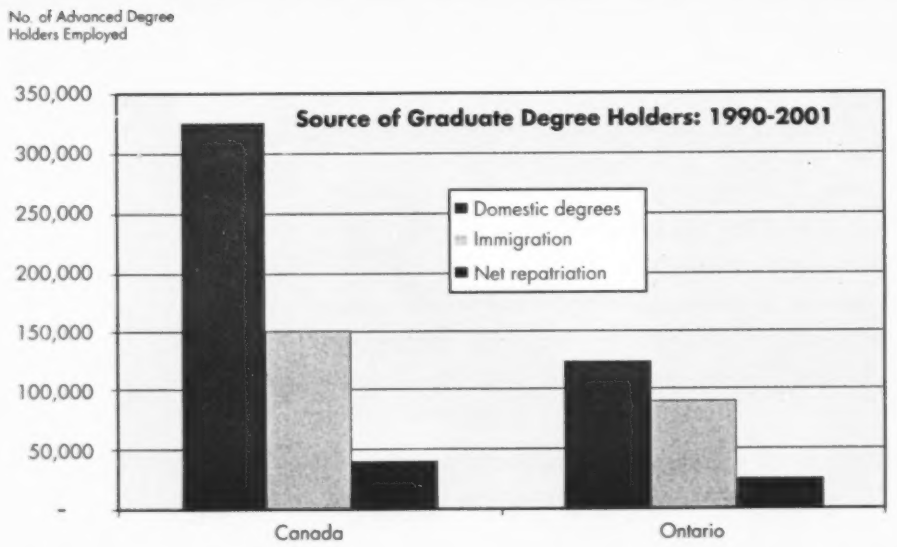
WORKERS WITH ADVANCED DEGREES

Disparity Between Market Demand and Domestic Supply Acute in Ontario



Source: AUCC. **Note:** Net repatriation is a derived number equal to the difference between employment and the sum of domestic degrees and immigrants with advanced degrees.

Since 1990, the Canadian economy has employed many more graduate degree holders than Canada's universities are producing – approximately 200,000 more. The shortfall between market demand for employees with advanced degrees and domestic supply is particularly acute in Ontario.

Fuelling Ontario's Economy Through World-Class Research

Research and scholarship are part of the mission of every university. Competitive research means that Ontario will be at the leading edge of breakthroughs and developments in socially and economically important fields such as health care, automotive technology, computing, environment, agriculture and the entertainment industry. Being at the leading edge of research means that Ontario is developing world-class expertise and a workforce that can bring the latest knowledge to product and process innovations.

Investments in research do a number of important things, in addition to the obvious contributions to knowledge:

- Government-funded basic research is developing Canada's **knowledge workforce**;
- Government-funded basic research is supporting the training of students, who upon entering industry, **transfer their skills and knowledge of science and technology** to the private sector;
- Government-funded research is expanding the **technological opportunities available to firms** for developing new products and processes; and
- Government-funded research is supporting the **creation of dynamic clusters of firms and the knowledge flows** essential to effective innovation.

Canada is much more dependent on the higher education sector for its research and development output than most other G-7 countries, and must foster university research to maintain its competitiveness. In the past several years, both the provincial and federal governments have demonstrated an increasing commitment to university-based research. Ontario initiatives such as the Ontario Research and Development Challenge Fund, the Ontario Innovation Trust, the Research Performance Fund and the Premier's Research Excellence Awards have infused over $800 million into Ontario university research activities since 1998.

Given the global market for first-rate scholars, these excellent initiatives should be reinforced and provided within a long-term funding framework. Attracting and retaining both top-notch faculty as well as excellent graduate students will result in direct and sustained benefits to the provincial economy.

Ontario's share of federal research funding – never above 39% over the past decade (2000-2001 is the latest year for which figures are available) – has consistently been below its share of the national GDP, which has been around 42% in recent years. For the sum of federal and provincial funding to reach 42% of the Canadian total, an additional $64 million per year would be needed. If Ontario were to provide half this amount – an additional $32 million per year – it would require an approximate 13% increase over the province's 2000-2001 research support levels.

Ensuring that Ontario's Campus Environments Contribute to Student Success

In planning for growth, we must ensure that Ontario universities can continue to deliver educationally effective experiences across the full range of disciplines at both undergraduate and graduate levels.

What defines an "effective educational experience"? Extensive research indicates that certain educational experiences are viewed as "effective" by virtually all students. Quality measures include challenging interaction with highly qualified professors; up-to-date classrooms, labs and libraries; a wide choice of courses and programs; and a supportive campus environment that is adequately staffed, serviced and maintained.

Provincial capital infusions facilitated the addition of new facilities at all Ontario university campuses and, as a result, helped accommodate the influx of the double cohort. However, existing campus facilities remain in desperate need of renewal. The average university building was 33 years old in 2001 and not configured for the computer age. Most laboratories are outmoded, and some are obsolete. Increased space is needed for workspaces for the greater number of faculty and graduate students, and for more lecture halls for the additional numbers of students expected over the decade and beyond.

The 2002 facilities condition audit, conducted by Ontario universities, found that the estimated current replacement value of all the facilities is $12.0 billion and the estimated deferred maintenance is $1.3 billion ($1.56 billion when adaptation/renewal renovations are included). Currently, the provincial government is providing $27 million per year, which represents 17% of that required to maintain the status quo and just 12% of that needed to provide the facilities students and faculty really need. Over $100 million per year of additional investment would be required just to maintain the inadequate status quo.